Tone of Voice Manipulation for Canopy

(Voice Command Calculator)

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Abstract— **This proposal describes portable tone of voice manipulation and language recognition system. While the manipulation system allows to using and ready to lend a hand of canopy people the language recognition system can be used manipulate numeric and scientific manipulation function into input tone of voice domination and output tone of voice domination. The most important advantage of the developed system is that they an run on a low cost motherboard device, such as a motherboard device, and by means of barely open-source projects, Which makes it realistic to imitate or take account of in other? Systems, but also allows its achievement as piece of Educational projects in electronics. The developed system have been hardened on real data with very good result.**

Keywords— *Mother Board device; GPIO (General Purpose Input Output); SD card; Voice Recognizer.*

I. INTRODUCTION

In recent days mobile phones, tone of voice manipulation are in use but it needs some keypad usage which is difficult to visually challenged people. Normally the canopy's are compute, but it is hard task. To compute problematical calculation manually. Hence the use of manipulator is essential. But it is not possible for the canopy people to use the normal manipulators in which the input is fed all the way through the keypads. The tone of voice activated, manipulator is low cost speaker Independent system that is used to perform basic statistical operation. It recognize the out of the way vocal digits from 0 to 9,and displays the ultimate come back with on an LCD display. This method substitute by using low cost mother board technology to recover drawback commands and parse the string into the character display where each element in the array is converted to its integer counter part and sent as a byte to LCD display system via IR counter or Wi-fi list of undemanding commands consist of volume up, volume down, channel up, channel down. The requirement of this proposal will address the software and hardware components needed to use this application. The mother board consist of four USB ports, Ethernet, HDMI(high definition multimedia interface) ,SD card and Audio/Video port. This system summary exhaustive specification be full of an intensive and detailed enlightment of all the block diagram to facilitate understanding.

The first of it is kind implementation discussed why the different types of hardware components are used as well as meaning full statics and testing done to ensure optimum functionality. The block diagram indicates the full information regarding the proposal. Here the user tone of voice is compared and according to it the endorsement are provided and user provide the above commands and then the application will work.

This proposal provides the facility of Block1 user to work friendly on LCD system. Different commands will use by the user to connect the system by vocalizing some commands through remote, due to large buttons available on remote it is difficult to understand the function for each buttons .So this proposal suitable for such new modern LCD Touch Screen also the main fundamental of this proposal is to find a path by least work and as well as find a path from far places.

System on chip is more multifaceted IC and incorporated chips and major function element into chip or chipset and its programmable processor, on chip memory and both hardware and software then its analog components cost reduced, and size is reduced ,increase performance ,power consumption is very low. HDMI(High Definition Multimedia Interface) is used to both audio and video signal, it gives digital form of signal. then DVI(Digital Video Interface) cannot carry audio signal. The HDMI is up to 1920x1200 resolution GPIO(General Purpose Input Output) also used for Input/ Output operators here GPIO pins 40 pins are allowed, but First 26 pins can be used LCD display reading from various ecological sensor. Example: IR video, temperature, federation orientation, hastening and OS initialization to used for micro SD card.

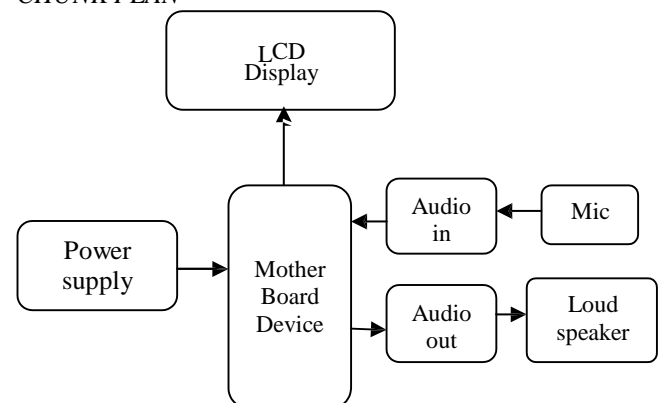## II. SYSTEM DESCRIPTION

A. CHUNK PLAN

Figure 1. Block diagram of Manipulator

The tone of voice activated, manipulator is low cost speaker Independent system that is used to perform basic statistical operation. It recognize the out of the way vocal digits from 0 to 9 and displays the ultimate come back with on an LCD display.

B. SUPREMACY DELIVER

One of the a large amount exhilarating updates/upgrade of the new Model B+ is a fancy new power supply.
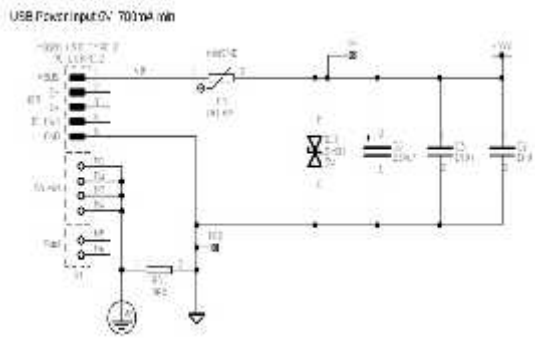

Figure 2. Diagram of power supply

The authority make obtainable of a computer unit is horribly monotonous sound, but its in authenticity very important A good influence make available makes the whole lot hum the length of austerely A outrageous preeminence deliver causes hiccups, crash, 'bricked' board, SD card failures, USB failure ,you given name it supremacy comes in from the LEFT side of the image, from a "MICRO USB TYPE B" jack, goes from beginning to end "mini SMD" **F3** (a fuse) and then has a **D17** (momentary Voltage fortificatic Diode) athwart it as well as some capacitors (C2, C3 and C6).

That electrical energy is the +5V0 USB means of shipping voltage. It truly easy on the pocket, allows the Pi Model B to be unsophisti ted and low cost, There's a TVS to protect aligned among overvolta /negative voltages (delimited by a volt or two, its not a gargantua TVS, it won't save from impairment associated with

120V or 120V mains!)There's a fuse to save from harm in disagreem t to over- in progress of with reference to 1A.

C. EXHIBIT ENTITY

The exhibit entity is driver approach needs en route for be unvarying current mode. everlasting damage to the device may occur if greatest values are exceeded or reverse voltage is loaded. Well-designed operation should be constrained to the conditions described under normal operating conditions. Demonstrate full white, Taillight on state, IC on understudy mode? The default electrical energy is 2.8V, for N illumination in series, the influence is that the current develop N.

D. FOREMOST PLANK

A lone timber, very bendable, four watt laptop in (model B) and (model A)Flavors premeditated and finished in the UK A mostly-open enlightening raised area. (Some chip firmware not open) A standalone Linux, BSD, RISC OS, or Plasystem with a lot of I/O A authoritative programming environment.

E. ACOUSTIC /CARTRIDGE

In regulate to formulate legroom for the moment set of USB ports, and the extended GPIO slot, the composite video port got the Chop

primary power via micro USB plug a one amplifier cell charger works well, but need two amplifier with USB hard driver.

The headphone jack also got a little bit of reworking, instead of being large and chunky its now according to PI team there's also an improved audio power supply so the audio output sounds The nice thinking about this jack is that it's a four pole (TRRS) type connector. Its plug in stereo headphones it will work like a head phone jack. Its plug in an audio/video cable like this existing proposal supposed availability only one secure digital cards. However this proposal multi over two secure digital cards. This also one of prime gain of this system.

F. HDMI (High Definition Multimedia Interface)

It's a Digital indication and it can Video and audio indication then DVI cannot carry audio signal, Up to 1920x1200 declaration.

G. STOCK PILE ENTITY

Form factor of bad crowd is also two cards are available in SD, Mini SD, Micro SD and then three Types of Card are SDSC (SD): 1MB to 2GB ,SDHC: 4GB to 32 GB , SDXD up to 2TB.

Figure 3. Diagram of SD and Micro SD

H. NOT-SO-GREAT

If the voltage upcoming into the Pi micro USB port is NOT 5V, say 4V - the Pi in disagreement to incomparability pin, won't be 5V, it will be 4V which is too low There's no presentiment or 'repair' circuitry to fix the low voltage, This can happen easily with a poor excellence USB port that provide no more than enunciate 4.5V or 4.75V amalgamated by way of a neglected distinction USB line with very undernourished ropes. The wires are so scrawny, that they act like resistors and there's a 'voltage drop' If the voltage is noisy or fluctuates, this can in adding together be in actuality exasperating for the Pi or whichever USB peacekeeping plugged into it If you plug great into a USB port on the Pi, the rapid current explain will cause a

brownout on the 5.0V line, reset all the other USB diplomacy. Let's also look at the 3.3V, 2.5V and 1.8V supremacy materials.
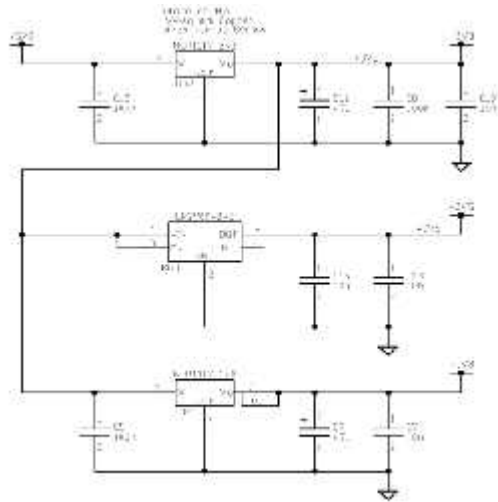

Figure 4. Diagram of Supply Unit

In the crest not here you can see with the intention of +5V0 electrical energy becoming extinct into a NCP1117- 3.3 (3.3V supervisory body), and the amount produced of that departure into a LP2980- 2V5 watchdog and NCP1117- 1V8 supervisory body. We're by means of the 5V authority provide to engender the 3.3V contribute, it does with the aim of by for all intents and purposes. 'Eating' the 5- 3.3 = 1.7V divergence and drive away the clout discrepancy in heat. This is why the full-size full of chunks 3.3V supervisory body gets brand boiling (But don't be troubled, it does not get so scorching it is damaging, its   just smoldering off that superfluous electrical energy differentiation in high warmth).

I.   GPIO (GENERAL PURPOSE INPUT OUTPUT)

First addiction to observe, the top 26 pins of the 40 -pin connector are the comparable as the unusual. That revenue that most /many Pi Plates that plug into the   Model B will bung into the B+ just excellent. They won't sit in the same arrangement - they'll be slid down immediately a bit but electrically- astute it's the same.

The BBB(Beagle Bone Black) capes all have a collective I2C bus for a Classic   24 LC type EEPROM. When the BBB boots, it schoolwork the EEPROM and configures the clean inputs and outputs and kernel modules, etc. base on the EEPROM. For community who care for to put together sensors, buttons, displays and other trimmings, there's 9 more GPIO pins there's also a two of a kind of ordinary pins, ID-SD and ID-SC the note declare they are kept back for PI plate ID EEPROM sounds redolent of the PI. First 26- pins of GPIO are the Same HDMI   port. Audio measurement of the A/V jack is the same equal Camera and DSI Display connector One of the most stimulating update/upgrade of the new Model B+ is a conjure   new power supply. The power supply of a computer is horrendously boring sounding, but its in actuality imperative. A good quality power give makes the whole lot hum beside cleanly. A bad power supply causes hiccups, crash, and 'bricked' the board, and SD card failure, USB failures...you surname it. The supremacy make available is what takes the micro USB port voltage and create the 5V in USB, 3.3Vand   2.5V and 1.8V central part voltages. The 3.3/2.5/1.8 are for the central processing unit as well as Ethernet.

In the top left you can make a distinction that +5V0 electrical energy going into a NCP1117- 3.3 (3.3V regulator), in addition to the productivity of that going into a LP2980- 2V5 regulator and NCP1117- 1V8 control device. We're by means of the 5V power make available to create the 3.3V supply, it does that by in essence, 'eating' the 5- 3.3 = 1.7V differentiation and dissipating the power difference in heat. This is why the big chunky 3.3V control device gets kind of hot as a alternate for of warmth up- spewing LDO (low dropout) regulators, we now have a dual dough converters. These are high good organization converters that can seize 5V down to 3.3V or 1.8V without as much heat loss The SD card immovable out the ending of the Pi, and may perhaps come unfastened or spur-of-the-moment off by industrial accident with an adequate amount of force. The new B+ replaces the large SD opening with a new Micro SD socket. You may have purchased a pre installed card Otherwise, you will need to sparkle the representation onto a 2GB SD card It synthesizes the data in communication to verbal communication commands and transmits it to the processor, that performs indispensable sums and commonsensical operation and the outcome is fed to the text to tongue converter. At last the final tone of   voice output is given to the loud amplifier. In the top left you container see that +5V0 voltage going into a NCP1117- 3.3 (3.3V supervisory body), and the quantity twisted of that going into a LP2980- 2V5 supervisor and NCP1117- 1V8 regulator. We're using the 5V power supply to engender the 3.3V supply, it does that by essentially 'eating' the 5- 3.3 = 1.7V difference and dissipate the power differentiation in heat. This is why the big chunky 3.3V regulator gets kind of hot other than don't be anxious, it does not get so hot it is hurtful, its just smoldering off that extra voltage difference in high temperature that it is used to keep the USB hot- swap power draws beginning resetting the most   important 5V power contribute.   Optimistically this resources you can plug- unplug USB devices in the vein of Wi-Fi adapters without them resetting the Pi.

III.OUTPUT

TABLE

Tone of voice	Manipulation	Voice/Display Output
Five plus three equal to	5+3=	8
Eight minus four equal to	8-4=	4
Nine multiple two equal to	9*2=	18
Eighteen divide two equal to	18/2=	9
Sixty two plus thirty two equal to	62+32=	94

Special Issue - 2015

International Journal of Engineering Research & Technology (IJERT)
ISSN: 2278-0181
NCICCT-2015 Conference Proceedings

Forty two multiple two equal to	42 *2=	84
Ninety two division two equal to	92/2=	46
Hundred multiple hundred equal to	100*100=	1000
Fifty nine plus fifty nine equal to	59+59=	118
Fifty minus forty equal to	50-40=	10
Hundred minus ninety equal to	100-90=	10

IV.CONCLUSION

This proposal bring to a close, The arithmetic and logical operation by means of tone of human voice ,then output and delivery as same in the tone of voice. In future ports are improved from 2 to 4,the touch screen facility improves as in the technical version. Last but not least may improve the GPIO for multifunctional use for canopy.

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